parts of Kolar, Tumkur, Mysore, Mandya and Hassan districts had not sown the seeds for want of rains during seedling season. The standing dry crop showed signs of withering owing to long draught and the failure of monsoon at the right time had interfered considerably with the growth of the standing crops. But well-distributed heavy rainfall during August and September 1955 brought some relief to the ryots. The late-sown crops faired well in all the districts. However, excessive rainfall which occurred later affected to a certain extent the early sown crops. Attack of insects and pests on crops was reported but severity of damage was negligible. The ragi crops were also reported to be generally satisfactory. No frost and hailstorm were experienced during January and February 1956. On the whole the seasonal conditions were satisfactory.

(ii) Agriculture.

573. The acreage and production of the principal crops of Mysore were :—

	Acreage (in thousand acres)		Production in tons	
	1954-55	1955-56	1954-55	1955-56
1. Paddy ...	848	834	371	492
2. Jowar ...	897	1,017	208	266
3. Bajra ...	211	...	34	...
4. Ragi ...	1,894	1,850	491	707
5. Small millets ...	761	...	94	...
6. Total cereals ...	4,614	...	1,199	...
7. Tur ...	149	...	16	...
8. Total pulses ...	1,047	...	92	...
9. Potatoes ...	9	10	9	11
10. Dry chillies ...	82	...	11	...
11. Tobacco ...	34	34	4	5
12. Sugarcane ...	58	58	89	1,482
13. Groundnut ...	533	506	120	138
14. Castor ..	94	..	8	...
15. Sesamum ..	69	..	6.	...
16. Total oilseeds ...	703	...	135	...
17. Cotton ...	436	443	139	81

574. There were four Institutions during the year imparting Agricultural Education:—

(1) Agricultural College at Hebbal
(2) Agricultural School at Hebbal
(3) Basic Agricultural School, R. K. Sala and
(4) Basic Agricultural School, Somanhalli, Maddur.

Agricultural College and School, Hebbal.

575. The strength of the College during the year was 206 and of the School 116. At the end of the year, 36 students qualified for B. Sc., (Agri.), and 24 qualified for the L. Ag., Diploma.

576. The students of the College and School had the practical training in the Research Station attached to the Institution.

577. The annual budget of the college for 1955-56 was Rs. 2·31 lakhs.

Basic Agricultural Schools.

578. The Basic Agricultural Schools both at Somanhally and R. K. Shala provided basic training in Agriculture for a period of one year with a view to train students for appointment of Village Workers, etc.

Paddy.

579. Plant Improvement.—Six hybrid selections of Bangarkovi, Kempukovi and Ganakovi were compared with two standard varieties S. 749 (Ratnachudi) and S. 661 (Coimbatore Sanna). Only one selection, S. 1092 had given a somewhat higher yield than S. 661.

580. Seven medium and long duration varieties evolved in Madras and Hyderabad were tried with S. 749. In the previous year none of these varieties proved significantly superior to the Mysore selection S. 749. However, S. R. 26-B gave the highest yield in the previous year and has outstripped all other selections this year also. It is a long coarse variety unlike S. 749 which is medium fine. It also matures a month earlier than the Mysore Selection.

581. Nine Burma cultures were tried last year with B. 1370 (Puttabhatta) as the standard. None of them proved superior to B. 1370 although B. III-8 was somewhat promising. B. I-29 and B. 1-6 had recorded yield of 4,675 and 4,275 lb. per acre.

582. Twelve early varieties from China, Burma and Madras were again tried with two early Mysore Selections, S. 317 (Halubbalu) and S. 705 (Bangarkaddi).

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583. The performance of individual plant selections from Russian paddy had not been good.

584. Three hundred and four collections of local and improved strain from breeding stations outside the State had been maintained.

585. At Hebbal which typifies paddy culture under tank atchkats, three yield trials were conducted. In the first trial six hybrid selections and two standard varieties from Coimbatore were tried. The varietal results were significant but none of the selections, S. 1092, S. 1089, S.1084, S. 1073, S. 1079, and S. 1081 gave higher yields than the standards. The varieties Co. 27 and Co. 28 gave yields of 5,000 and 4,860 lbs. per acre compared with yields varying from 2,560 to 3,540 lbs. given by the selections.

Ragi.

586. Improvement work on ragi was conducted at the Agricultural Research Station at Hebbal, Mandya and Siruguppa.

587. In the replicate trials, only one early ragi R. 1034 gave 10 per cent higher yield. The other selections have given 25 per cent more yield than ragi 22.

588. In the yield trials, Ragi 22 and R. 0870 proved significantly superior to R. 0883.

589. At the Agricultural Research Station, Mandya, all the three improved types Co. 1, 3 months Nati and Ragi. 1. proved superior to H. 1.

590. Selections were made in "3 months nati," and one of them No. 9 was found superior to others, and it was named as "Aruna" and was being multiplied for district trials.

591. At the Agricultural Research Station, Siruguppa, ten types were tried in 2 sets based on duration. In the first set, K. R. 4 proved superior to control K. in 1 respect of grain only. In the second set, H. 22 (Ragi 22) though not superior to Co. 1 was found significantly better than S.R. 2, and M.K. 1 in respect of grain but the straw yield was poor.

Jola.

592. *Mungari Jola.*—Out of 11 cultures tried, A. S. 8159 was found significantly better than the Control Co. 9 with a yield of 2,647 lb. per acre and critical difference of 347 lb.

593. *Hingari Jola.*—Out of the 19 promising cultures under trial at Siruguppa, eight cultures have recorded

yields higher than the standard, M. 31-2, both in respect of grain and straw.

Navane, Italian Millet, Setaria Italics Beans.

594. H. 1, H. 2 and Red Navane were compared with N. 1, in an yield trial at Siruguppa. The yield differences were significant and none out-yielded the control in grain although Red Navane gave a significantly higher straw yield than N. 1. H1 and H2 were earlier to N 1. by a week and Red Navane, later by two weeks.

595. In the preliminary yield trials reselections from N. 1, and Hagari varieties, failed to attain significance in yield in the first test. In another test, K. 175-1 a reselection from N. 1. registered a significantly higher yield of 1,300 lb. of grain per acre than N. 1 with 786 lb. per acre. The straw yield however showed no significant differences.

596. *Groundnut, Arachis Hypogea.*—The breeding work was undertaken mainly at the Agricultural Research Station, Hebbal. Three selections from Virginia Japan, and Pondicherry had given higher yields than H.G. 7 and also T.M.V.1.

597. A new scheme for multiplication and distribution of improved groundnuts, sponsored and partly financed by the Indian Central Oil Seeds Committee was put into operation during the year. HG. 7; HG. 8 and HG. 10 were multiplied both at Hebbal and Mandya. The yield per acre at the Agricultural Research Station varied from 482 to 981 lb. of pods.

Cotton.

598. *Asiatic Cotton.*—The work on Asiatic Cottons was continued at the Agricultural Research Station, Hiriyur.

599. Fifty-seven varieties were maintained for study. Forty-five selections have been made from them for high ginning percentage and staple length. Seventeen homozygous sibs (off spring of same parents) were tried and found significant with a critical difference of 98 lb. per acre.

600. *Western Cotton.*—The Western Cotton Improvement work was mainly undertaken at the Agricultural Research Station, Hagari. Thirty-six crosses in the F.1 generation were under study. At least seven of them had superior fibre qualities than W.1.

601. In the F.2 generation study, 70 promising combinations were tried in replicated and randomised plots

with the standard Westerns 1. Of which, 15 combinations revealed significantly higher values in regard to halo length and ginning percentage.

602. *Combodia Cotton.*—This work was conducted at Siruguppa. The main object was to evolve a long stapled American Cotton for both the irrigated rabi crop and for the rainfed tracts.

603. Fourteen promising cultures were tried with M.A II. Cultures 5067 and 5216 out-yielded the standard in lint production by 21 and 28 per cent respectively. The fibre qualities were also superior to M.A. II.

604. *Long staple American Cotton.*—The main work was done at the Agricultural Research Station, Mandya.

605. Eight hundred and seventy-five direct and back crosses were effected during the year. Three hundred and tweaty-one progenies from interspecific crosses were in progeny row trials. Ten selections have excelled the control in yield as well as staple length.

606. Seven homozygous strains were tested with M.A.V., M.U. 1. and M.U.2. Strains 19-1, 14-2 were as vigorous as M.A.V. 19-1 and 30-1 have recorded higher yields than M.A.V, and possess a larger staple.

607. Comparative trials of Laxmi and M. A. V. in three soils types, black, red and intermediate in the three taluks of Honnali, Harihar and Davangere showed that Laxmi was more suitable for black soils than M.A.V. which was evolved mainly for the red soil.

608. Studies of Egyptian and Sea Island Cotton selections were continued during the year.

609. *Sugarcane.*—Eight mid season and four early varieties were tested at Agricultural Research Station, Mandya, in a prefinal yield trial with Co. 419 as the standard cane.

610. At the Agricultural Research Section, Hiriyur 14 HM, Ic and Co, varieties were compared with Co. 419. The critical difference for significance was rather high -10·95 tons per acre and none of the varieties proved better than Co. 419.

611. At the Sugarcane Liaison Farm, Hospet, Co. 419 proved the best with 43·1 tons per acre followed by Co, 449 (41·17 tons per acre).

612. Ninety-five thousand eight hundred and twenty-two acres of paddy were cultivated by the "Japanese Method" as against a target of one lakh acres. Nurseries were raised on 5,440 acres to cover the area. The average yield by adoption of Japanese method per acre was 4,138 lbs. as against 2,755 lbs. by local method as revealed by Crop Cutting methods. Japanese method of cultivation.

(iii) Sericulture.

613. The Mysore Silk Worm Seed (Control of Distribution) Act, 1952, which was introduced during 1954, in the Mysore Seed Campaign areas was continued to be in force during 1955-56. The total quantity of Mysore reeling cocoons transacted in the ten cocoon markets was about 2·95 lakhs of pounds. Mysore seed cocoons were made available to the seed rearers at reasonable rates and there was no unhealthy competition between private seed preparers and aided grainages. Preliminary measures were taken up to extend the Act to the other sericultural areas of the State during the next year. Seed Legislation.

614. The area under mulberry during the year remained at 1,30,000 acres comprising of 1,09,500 acres of rainfed and 20,500 acres of irrigated gardens. Due to the fall in cocoon and silk prices during the latter part of the calendar year 1956, some of the mulberry gardens were neglected by sericulturists mostly in Mugur Division. An extent of about 600 to 700 acres of mulberry gardens were either renovated or newly planted in the Mysore seed cocoon producing areas of Bidadi, Kunigal and Dodballapur. Area under Mulberry.

615. The area under mulberry in the Government gardens was 57 acres and 29 guntas. Government Mulberry gardens.

616. A total quantity of 21·42 lakhs of foreign race seed cocoons were harvested out of the rearings conducted at the Government farms as against 18·8 lakhs during the previous year.

617. Out of the rearings in the gardens of the Government Silk Farm, Kunigal (Mysore seed area), a quantity of 4·52 (3·84) lakhs of Mysore seed cocoons were harvested.